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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/032,701	01/07/2005	Oleg Podtchereniev	0100.2099-005	2500
21005	7590	09/18/2006	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133				DOERRLER, WILLIAM CHARLES
			ART UNIT	PAPER NUMBER
			3744	

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	11/032,701	PODTCHERENIAEV ET AL.	
	<b>Examiner</b> William C. Doerrler	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-90 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 January 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6-17-2005</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Reissue Applications***

Applicant is reminded of the continuing obligation under 37 CFR 1.178(b), to timely apprise the Office of any prior or concurrent proceeding in which Patent No. 6,502,410 is or was involved. These proceedings would include interferences, reissues, reexaminations, and litigation.

Applicant is further reminded of the continuing obligation under 37 CFR 1.56, to timely apprise the Office of any information which is material to patentability of the claims under consideration in this reissue application.

These obligations rest with each individual associated with the filing and prosecution of this application for reissue. See also MPEP §§ 1404, 1442.01 and 1442.04.

The reissue oath/declaration filed with this application is defective because the error which is relied upon to support the reissue application is not an error upon which a reissue can be based. See 37 CFR 1.175(a)(1) and MPEP § 1414.

Applicant states that the error being corrected is applicants' failing to claim all they had a right to claim, specifically the use of R-236ca or R-245ea. Yet applicant had no right to claim these refrigerants in the blend. The discussion or even listing of these refrigerants cannot be found in the specification of the parent case as initially filed. In applicants' remarks to the preliminary amendment, applicants state that these refrigerants can be found in the provisional application that was incorporated by reference. However applicant never incorporated the '237 application by reference.

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Applicants specifically incorporated the parent application 09/728,501, but never expressly incorporated by reference the '237 provisional application. (It is noted that the '237 provisional is not expressly incorporated by reference in the '501 application). Thus what applicants are alleging as the error, cannot be corrected by reissue, as it entails adding material which was not in original description. Applicants further state that the other changes in the preliminary amendment were made to overcome errors that occurred in the broadening of the claims. It is unclear what these errors are as only claim 8 is mentioned, and some of the new independent claims do not claim the refrigerants which were stated as being erroneously omitted.

Claims 1-90 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the declaration is set forth in the discussion above in this Office action.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8-90 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As discussed above in the rejection due to the

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declaration, applicant has added R-236ca and R245ea to claims 8,15,22,28,29 and 36, as well as amending the specification to include these refrigerants. The preliminary amendment that added these refrigerants to the specification and the claims are improper as the provisional application from which they are being derived, was not properly incorporated by reference in the parent application. Claims 44,52,64,66 and 85 claim one of neon, argon, nitrogen or helium. No statement can be found in the original specification that neon or helium can be used without argon or nitrogen. As such, the use of neon or helium alone, is seen as subject matter that was not originally disclosed. The claims not specifically mentioned either depend from claims mentioned, or are new claims which claim the R-236ca or R245ea additions.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 76,79,81-83,88 and 89 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 9 of U.S. Patent No. 6,886,361. Although the conflicting claims are not identical, they are not patentably distinct from each other because the newly added claims would dominate the earlier patented (in the '361 patent) claims.

The newly added claims claim a refrigerant blend which overlaps the ranges of components of claim 9 of the '361 patent. Thus one would not be able to use the refrigeration system with the specific refrigerant of claim 9 of the '361 patent, without infringing the current claims listed above. Likewise, one of ordinary skill in the art would realize that the refrigerant blend of the '361 patent could be used in cooling systems with similar pressures and temperatures to provide efficient low temperature refrigeration.

Claims 8,15,22,29,36,43-45,47,52-63,66-71 and 85-90 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of U.S. Patent No. 6,722,145. Although the conflicting claims are not identical, they are not patentably distinct from each other because the newly added claims would dominate the earlier patented (in the '145 patent) claims.

The newly added claims claim a refrigerant blend which overlaps the ranges of components of claim 12 of the '145 patent. Thus one would not be able to use the refrigeration system with the specific refrigerant of claim 12 of the '145 patent, without infringing the current claims listed above. Likewise, one of ordinary skill in the art would realize that the refrigerant blend of the '145 patent could be used in cooling systems

with similar pressures and temperatures to provide efficient low temperature refrigeration. Although the ranges of refrigerant components are not identical, they overlap so that certain combinations will meet the ranges of both the new claims and the claims of the '145 patent.

Claims 8,15,22,29,36,43-47,52-71 and 85-90 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,560,981. Although the conflicting claims are not identical, they are not patentably distinct from each other because the newly added claims would dominate the earlier patented (in the '981 patent) claims.

The newly added claims claim a refrigerant blend which overlaps the ranges of components of claim 2 of the '981 patent. Thus one would not be able to use the refrigeration system with the specific refrigerant of claim 2 of the '981 patent, without infringing the current claims listed above. Likewise, one of ordinary skill in the art would realize that the refrigerant blend of the '981 patent could be used in cooling systems with similar pressures and temperatures to provide efficient low temperature refrigeration. Although the ranges of refrigerant components are not identical, they overlap so that certain combinations will meet the ranges of both the new claims and the claims of the '981 patent.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oberle et al show refrigerant blends for cryogenic refrigerators. Leck et al shows a cryogenic refrigerant with POE lubricant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Doerrler whose telephone number is (571) 272-4807. The examiner can normally be reached on Monday-Friday 6:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William C Doerrler  
Primary Examiner  
Art Unit 3744

WCD